

DRAFT
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Intelligence Communications and Related Procedures

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The Problem

1. This paper concerns both the mechanical and organizational aspects of intelligence communications from the time that a piece of information is collected until it is in the hands of all of the intelligence analysts in the U.S. Government who need it to carry on the analysis for which they are responsible.
2. It discusses the problem of organizing the communications of the intelligence community as a whole. It is not limited to the communications of the Central Intelligence Agency, although it might be desirable for the C.I.A. to manage a communications system along the lines of this model as a service of common concern.
3. In an activity as large and complex as the intelligence community the problem of transmitting information from collector to user is necessarily a tremendously complicated business. In our present situation the natural complexity is compounded by the process of unplanned evolution from an archaic past of our communications in separate departments and agencies. Rather than examine the present communication system and related organization of the intelligence community, this paper will attempt to construct a model of an ideal system which would take advantage of the advanced technical developments available to us and which would attempt to make the flow of communications keep pace with the increasing speed of world developments and hostile weapons systems.

4. The model of the communications system outlined in this paper will be opposed by many people on the grounds that: (a) it will require the development and implementation of a vast array of new relationships and new methods of work; (b) it will be expensive as compared to the present direct expenses for rapid communications and courier services; and (c) many of the changes in detail from our present procedures will involve relatively small gains in time saved or increased efficiency and these gains will seem small when compared to the possible disruption of existing work habits.

5. These objections must be met by a recognition that: (a) custom and established habits must not be allowed to inhibit the ability of the intelligence community to be of maximum service to the U.S.; (b) the cost of a truly effective communications continuum would be small in comparison with the expenses resulting from inadequate intelligence, and an increase in direct communications cost might well be balanced by savings in indirect costs; and (c) no single change in our present organization and work procedures can result in any major saving of time or efficiency, but a great many small changes in organization and procedures can result in a great improvement in the intelligence process.

6. The present communications system used by the intelligence community is essentially the same as that used by the U.S. Government in 1900. In that era the few copies of dispatches from abroad required in Washington could be typed in an Embassy and the necessary number of carbon copies forwarded to Washington by ship pouch. The only thing that has changed in this procedure is that we need more copies in

Washington and, therefore, use stencils instead of carbon paper, and forward the stencil by air instead of by sea. As a result, there has been a speed-up in the means of transportation but no change in the basic system itself. Dispatches still flow back to Washington to parent departments through many separate channels where distribution is made by mail rooms and secretariats to other interested departments and agencies who in turn route the documents by messenger to subordinate components.

7. In the case of messages transmitted by rapid means there has also been little change in the basic system in the past 50 or 60 years. Messages are still typed, carried to the code room and enciphered, transmitted, deciphered, reproduced, and distributed by messenger to secretariats who make further distribution inside and outside the parent department. The only speed-up in this system has occurred as a result of the development of radio and more efficient teleprinter machines and cipher machines. The message can be sent across the ocean more rapidly than it formerly could be by the cables of 1900 but approximately the same amount of time is consumed in handling it at both ends of the communications system and these are the areas in which the greatest amount of time has usually been consumed.

8. Under the present operating procedures of the intelligence community, we are never able to say what the current situation is in the Soviet Union. On a very small number of items we can say what the situation was yesterday or two or three days ago. On other things we can say what the situation was a week or 10 days ago. On the great

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ness of things, however, we can only say what the situation was two months or three months or six months ago. Many intelligence studies carry a cutoff date which indicates that the conclusions of the paper were the best judgment of the analyst on the basis of the information available to him at that time. The date conceals the fact that the information itself probably was several months old and that the situation actually described was considerably older than the cutoff date on the report.

9. The slowness of our communications systems means that we are heavily dependent upon the judgment of people in the field concerning the importance of specific items of information, since they make the initial judgment concerning the method by which the information will be forwarded to Washington. It happens frequently, therefore, that information comes in by slow means which would have been of considerable importance in the judgment of Washington analysts had it been received by rapid communications in a timely manner.

10. This model of an intelligence communications system is based on these major themes:

- a. connecting all intelligence components in one integrated communications network.
- b. expanding capacity to permit all intelligence to be forwarded by electrical or other means to ensure receipt by the intelligence analyst within twenty-four hours.
- c. mechanizing and simplifying information handling procedures at both ends of the communications system to permit major savings in distribution time.

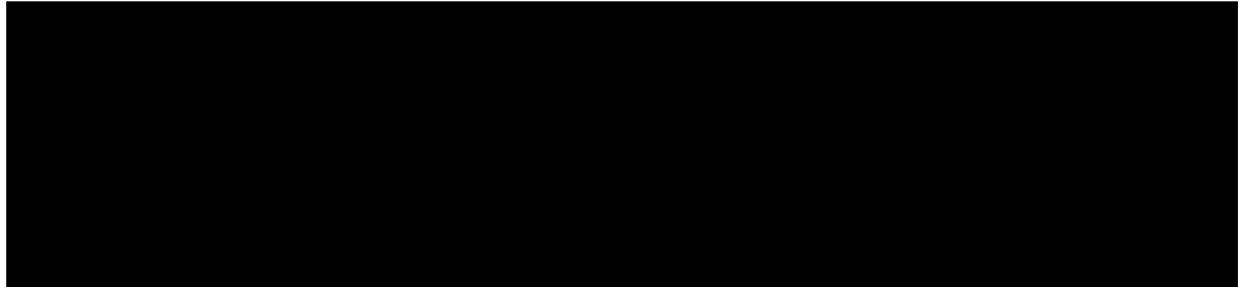
The Model

11. A communications system for the intelligence community must be based on the anticipation that in an emergency situation there will be a tremendous increase in all types of communications, operational as well as intelligence. The increase in operational traffic might be so great that military circuits normally available to intelligence might no longer be available. It is essential, therefore, that the major communications system used by the intelligence community be operated and controlled by the intelligence community.

12. Fortunately those responsible for C.I.A. communications have developed or have access to newly developed equipment and techniques which could be used to install a radically new high-volume rapid communications system. The basic elements are:

- a. The AS4A - a tape-fed transmitter capable of transmitting up to 1600 words per minute as opposed to 60 or 100 WPM now handled by conventional radio teletype. The AS4A appears to be highly reliable and less subject to garble problems than conventional systems.
- b. The AS5 - a small version of the AS4A for use in small and relatively isolated stations.
- c. A flexo-writer which will permit a typist to punch a teletype tape suitable for transmission on the AS4A at the same time that she is typing the text of a document.

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13. The high-volume rapid communications system using this equipment would operate as follows:

a. Wherever possible intelligence reporting offices of all departments and agencies would be equipped with flexo-writers and the equipment necessary to encipher the resulting tape.

Reports would be punched on tape and the originator, using an addressee handbook, would mark Washington distribution on the report according to its subject.

b. Tapes would be transmitted to a main relay center in the area by one of the following means:

- (1) ~~Land~~ ^{Land} line
- (2) Radio teletype
- (3) Air mail
- (4) Courier

In some cases, where airline schedules permitted, tapes would be sent directly to Washington by air mail.

c. The relay center would transmit the taped messages to Washington via the ASHA.

d. The information would be received in Washington in the form of tapes exactly like those transmitted originally. These tapes would be transmitted simultaneously by wire to a message center and to all offices shown on the distribution indicator on the message. The message center could fill out distribution of the report wherever the field reporter had failed to indicate all of the distribution needed.

e. The receiving offices would receive these reports on a teleprinter using stencil paper. The original message tape would have carried instructions concerning format and these would cause the teleprinter to produce on the proper format, in the office of all users of the report, identical stencils allowing each to run off immediately and distribute internally as many copies as that office might need.

14. This high-volume rapid communications system will have to handle something on the order of three million words a day coming into Washington, but since one ASHA is theoretically capable of handling over 2,000,000 words per day, a small number of main relay centers should be able to handle that volume easily. With this system it should be possible to get the bulk of all intelligence reports from the field to the using analytic office within twenty-four hours instead of the weeks required at present.

The system would supplement, rather than replace, the existing system for handling highly important reports and correspondence now transmitted by cable and radio.

15. With the intelligence community operating at the speed envisaged in this communications system, it would be extremely difficult to maintain current standards of form and appearance for much of the material passing through the system. This is a small price to pay, however, for the increase in timeliness of the substance.

Conclusion

16. The construction of a communications system along the line of the model would involve a heavy initial investment in equipment, facilities, and communications personnel. Once in being, its daily operation might

well be more expensive than the current system. If the same results cannot be achieved by other means, however, the intelligence community may have to face the hard fact, that it must pay the necessary sums to put this model into effect if it is to do the job that it is expected to do for U.S. security.

17. There are many obvious difficulties to inhibit the establishment of a communications system such as that described in this model. None of these difficulties should be insurmountable if there is a determination in the intelligence community to make our knowledge of events affecting the security of the U.S. keep pace with the events themselves.